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pg. 9.

Alm. Howard

Dated - March 1828  
an

Inaugural Essay

On Education of the Intelligentsia

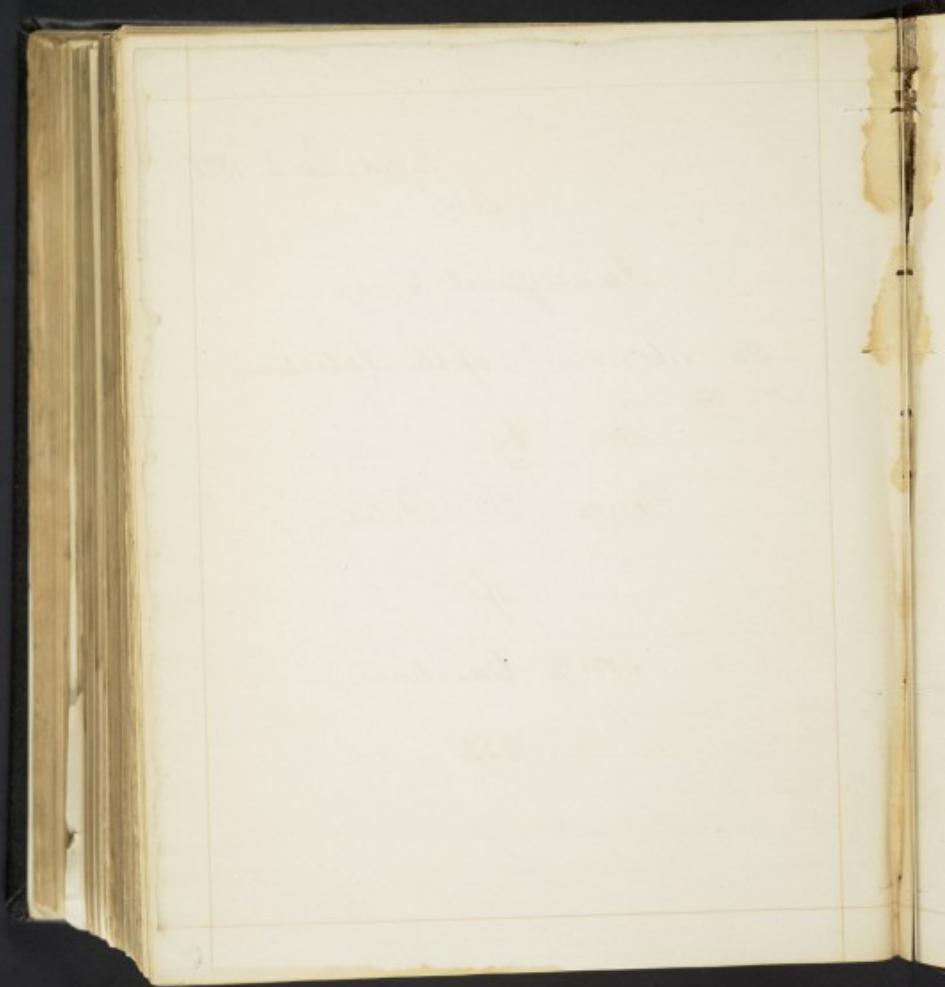
by

George S. Bettner,

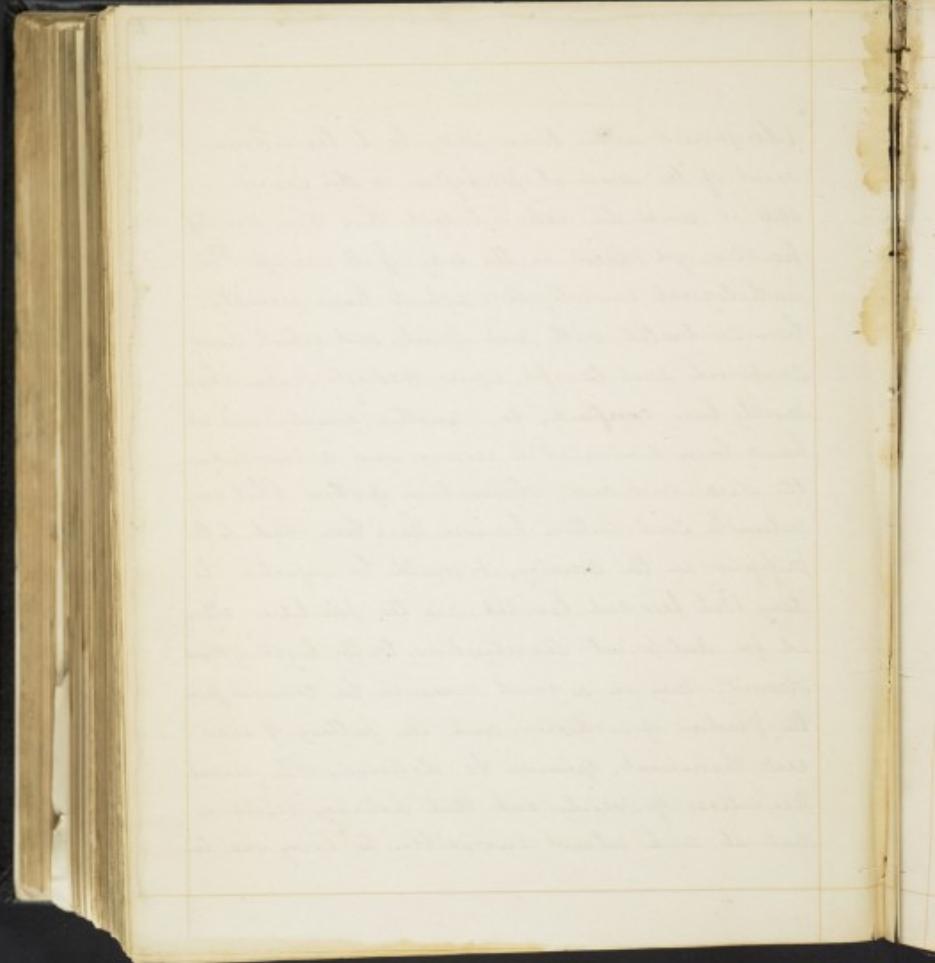
of

North Carolina.

1828.



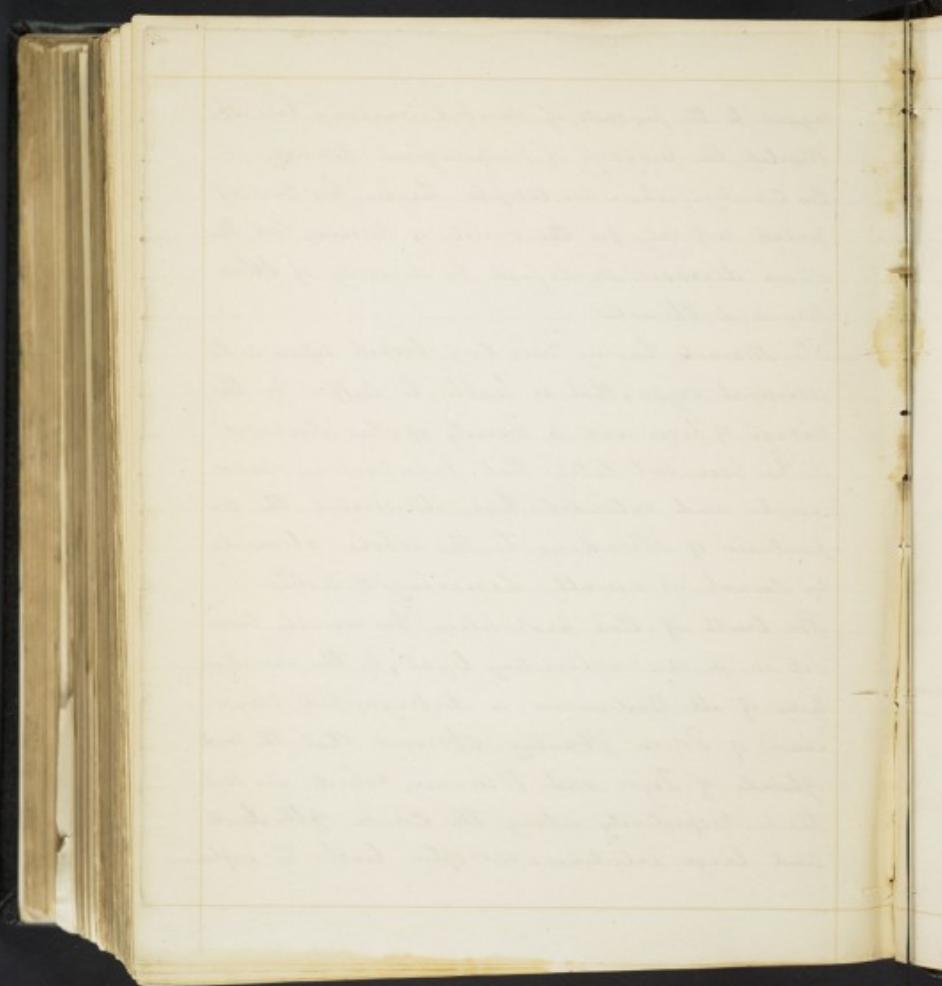
Auspicious as the times may be to the advancement of the medical profession in this country, still it must be acknowledged, that there are difficulties, yet placed in the way of its success. The pathological investigations, which have recently, been conducted, with such spirit, and which have conferred such benefit, upon Medical Science, have mostly been confined, to another quarter, and we have been contented, to receive and acknowledge the discoveries and observations, of others. That very valuable contributions however, have been made to the profession in this country, it would be injustice to deny. But few and limited, are the facilities, allowed for Autopsical investigations, by the light of which obscurity, may in a great measure, be removed from the practice of medicine, and the fallacy of incorrect, theoretical opinions be detected. The general prejudice of society, and that delicacy which is natural, and almost invincible, to every one, in



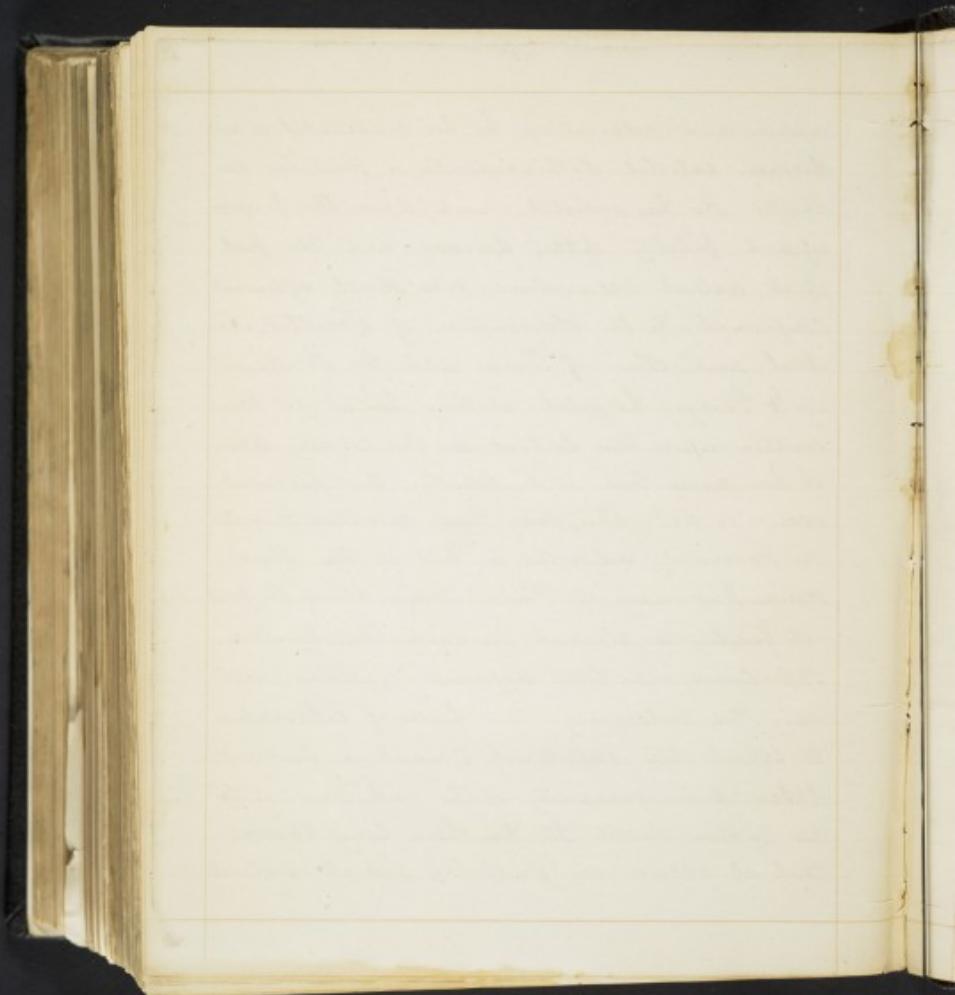
regard to the pursuit of Morbid anatomy, have obstructed the progress of pathological discovery in this Country, where an ample theatre, has been afforded, not only for the variety of disease, but the same diseases, modified by diversity of situation and climate.

The Stomach having been long looked upon as the principal organ, that is liable to suffer by the ravages of fever and a variety of other diseases; it has been but lately, that investigation, more ample and extended, have illustrated, the importance of attending to the whole alimentary canal, as equally deserving of notice.

The truth of this proposition, has recently been set in a most interesting light, by the investigations of Dr Brilmann, a distinguished Physician of Paris. Having observed that the small glands of Peyer and Brunner, which are seated, respectively along the course of the small and large intestines, are often liable to inflam-

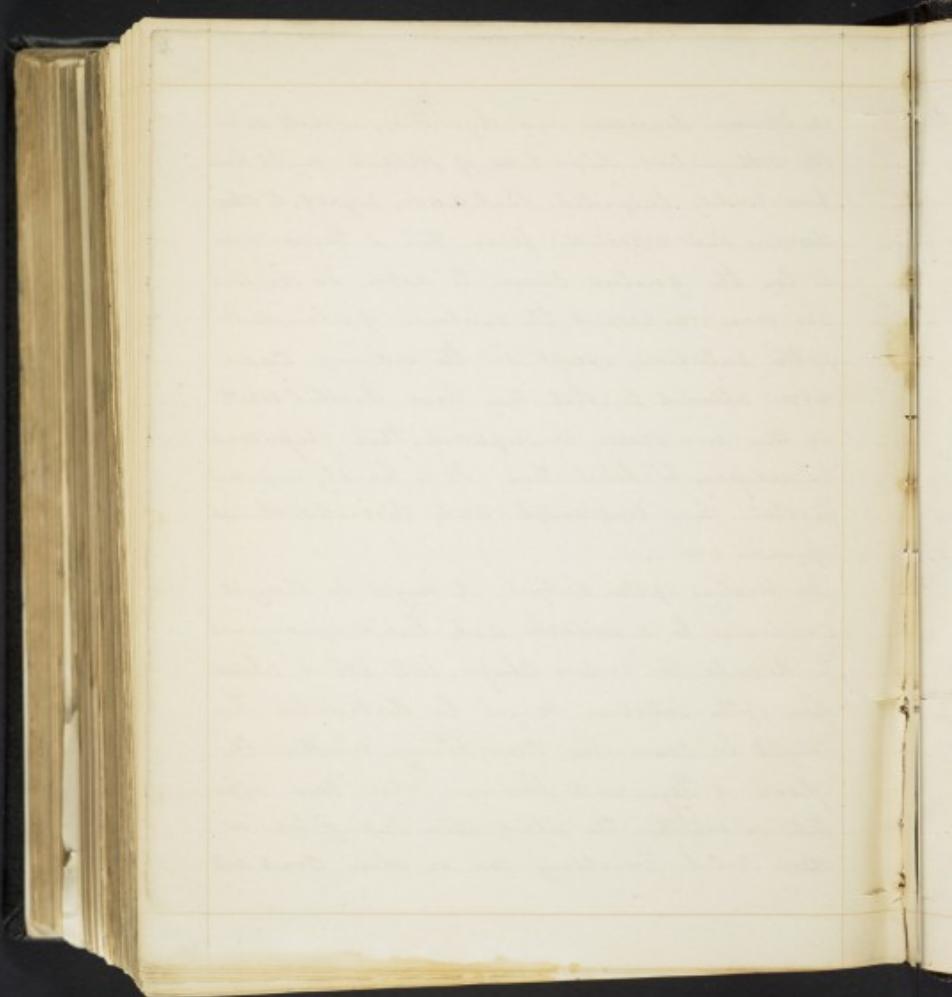


Mation and ulceration. He has constituted a new disease, entitled *dothinectitis*, or *pustular enteritis*. He has insisted much, upon the frequency and fatality of this disease, and the fact of its actual occurrence, was shortly afterward confirmed, by the observations of Troillet, Audeal, and others of Paris, and by Dr Hewitt of St George's Hospital. Nothing has, as yet been written upon this subject, in this country, where it has never been said, whether this disease occurs or not. This may have resulted from causes previously adverted to; but in the Almoe House Infirmary of Philadelphia, where the greatest facility is allowed for such investigation, opportunity has been afforded, of seeing, not only this, but every other form of ulceration to which the intestinal canal is subject. Ulceration generally of the intestines, is by no means new. It has been long known that it occurs in *Variola*, and its existence

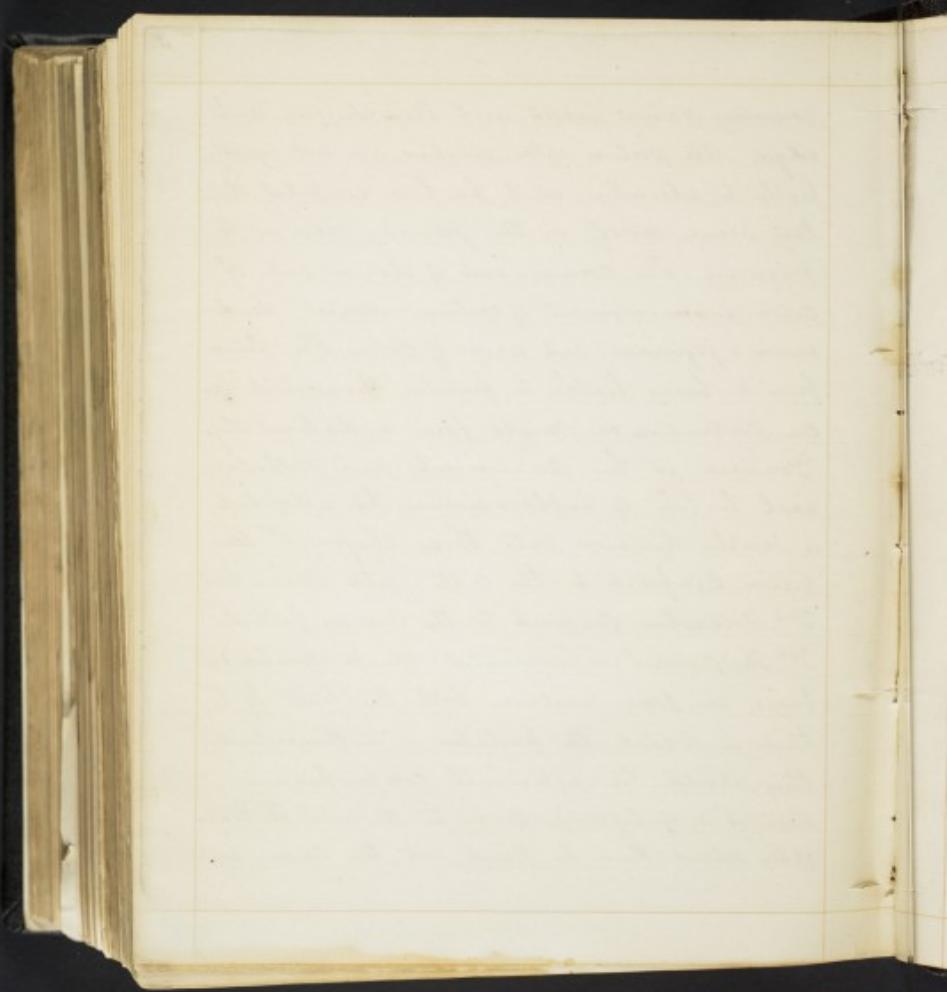


in Chronic diarrhoea and dysentery, as well as in the catarrhalic diarrhoea of Phthisis, might have been readily suspected. But ~~it~~ is in regard to other diseases and especially, fever, that it begins now to lay the greatest claim to notice. So sceptical are many, as respects the existence of ulceration of the intestine, except in the ordinary cases, above alluded to, that they have doubted whether it can occur, or supposed, that glands would be necessary to detect them. It is hardly important to state, how unfounded, and discreditable such opinions are.

In treating of this subject, it might be thought conducive to a suitable and lucid arrangement to describe the various Claps, into which ulceration of the intestine, might be distributed. There might be numerous, Considering, whether, the Glands of Peyer and Brunner, alone were affected; or whether the ulcers were superficial or deep seated, involving one or more coats and



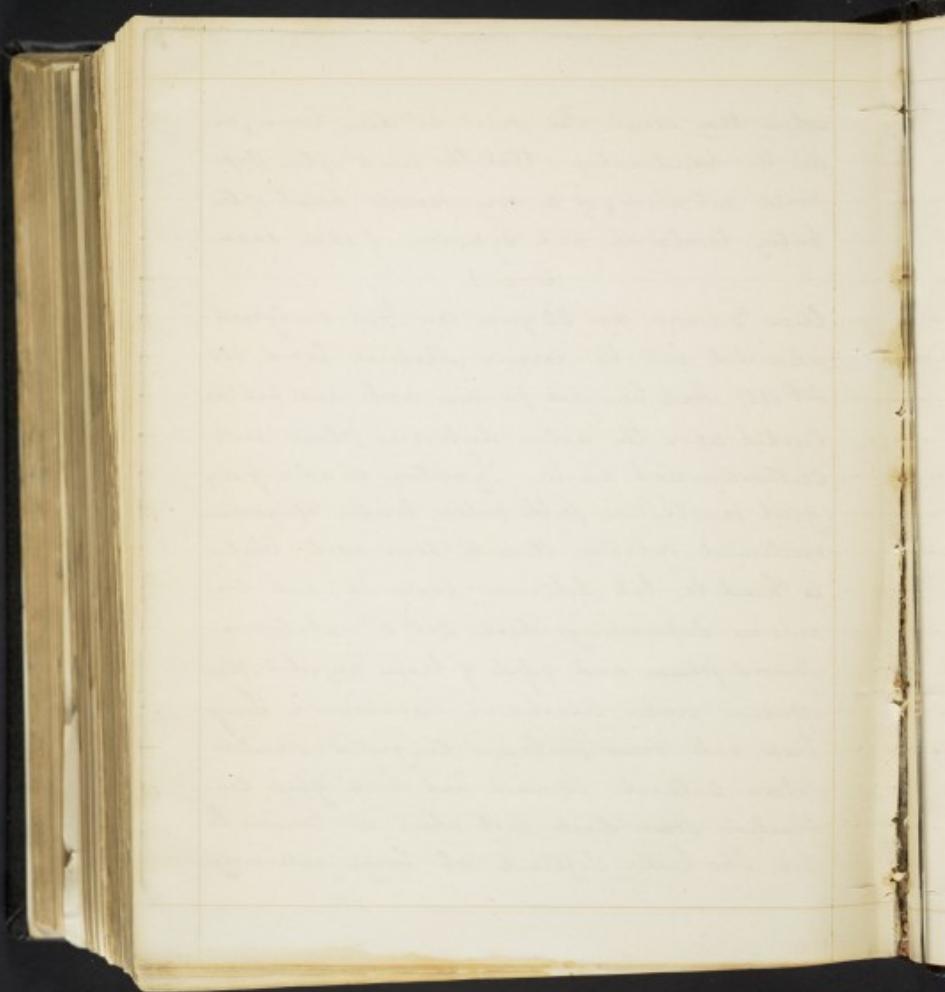
presenting various aspects, as to their surface and edges. All portions of the intestines, are not equally liable to ulceration, as it has been computed that they occur, mostly, in the following order as to frequency. The Cœcum: end of ileum: end of Colon: commencement of rectum: Stomach: duodenum: jejunum: and arch of Colon. The rectum from its being liable to fistulae, Hemorrhoids, can cur. Contractions &c. might form a distinct class. Gendron in his Anatomical, and Pathological history of inflammations, has adopted a simple division into three classes. 1<sup>st</sup> the Villous, confined to the villi of the mucous coat. 2<sup>nd</sup> Follicular, confined to the mucous follicles. 3<sup>rd</sup> The Patched or laminated, which would embrace in some instances both the first. If to these is added, the punctular, or dotting ulceration, they would be sufficiently comprehensive. But it is of less importance to describe the classes of the ulcers, than to point out the cases, in



which they occur. This must be done however, under the disadvantage, that the limit of this paper would not allow, of a very minute detail of the history, treatment, and symptoms, of each case.

Case I.

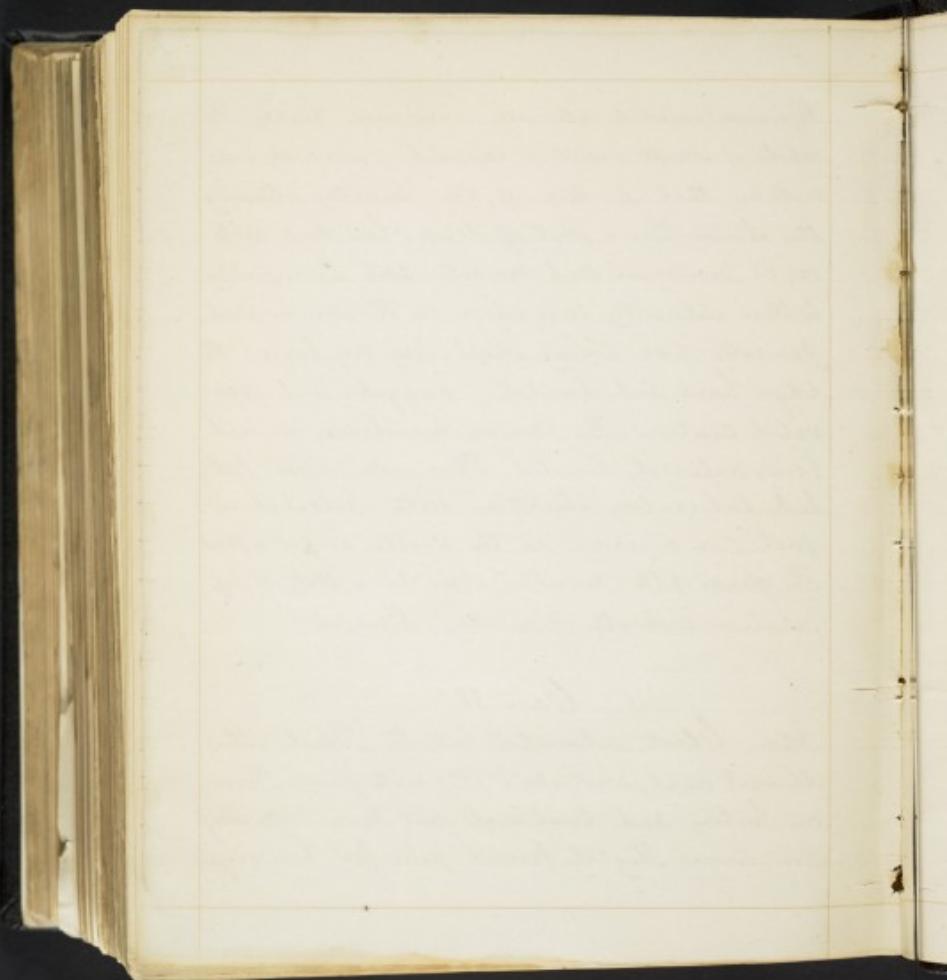
Eliza Gilmore, age 22 years. An Irish emigrant admitted into the German Medical Ward, Oct 3rd 1827. Had been sick for nine weeks, and had been treated upon the active disturbing plan, with cathartics, and earthen. Symptoms on admission, great prostration, feeble pulse, tender epigastrium, excitement of brain. Stimuli were used; blisters to head &c, but delirium increased, and convulsions supervening, died Oct 6<sup>th</sup> at 10 p.m. Choroid plexus, and vessels of brain injected - slight effusion under Arachnoid Membrane - Lungs, liver, and Vasa portarum congested - Heart & spleen natural. Stomach had four glaps contraction. Some dark spots about its mucous membrane, the latter so tender at large extremity.



Ileum injected externally, internally healthy. The whole of Small intestine injected externally, as well as that portion of the Mesentery attaching the ileum. Lower part of ileum, had dark spots on its peritoneal and muscular coat corresponding to them internally, low ulcer in the mucous coat, generally of an oblong shape; some very large; the edges hard and elevated; ragged, and excavated centre. The mucous membrane around being intensely injected. Then low some pallid tuberculous elevations, with ulceration just commencing in the centre, as ~~at~~ at a point. The glands of the mesentery, some in a state of suppuration and all generally diseased.

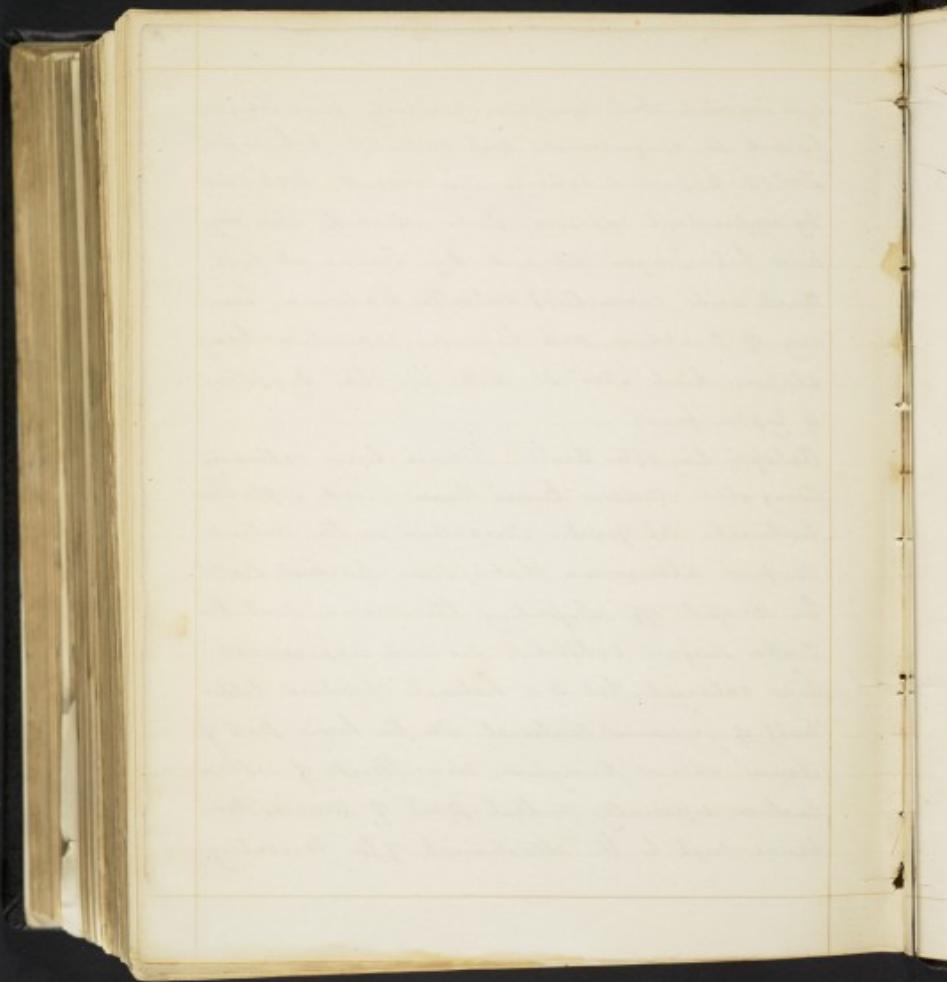
#### Case II.

James Clark admitted into the Blackmore Medical Ward, about Nov<sup>r</sup> 1<sup>st</sup> 1827 with fever. Previous history and treatment not known. On admission; tongue slightly furred; pulse good. Heart respi-

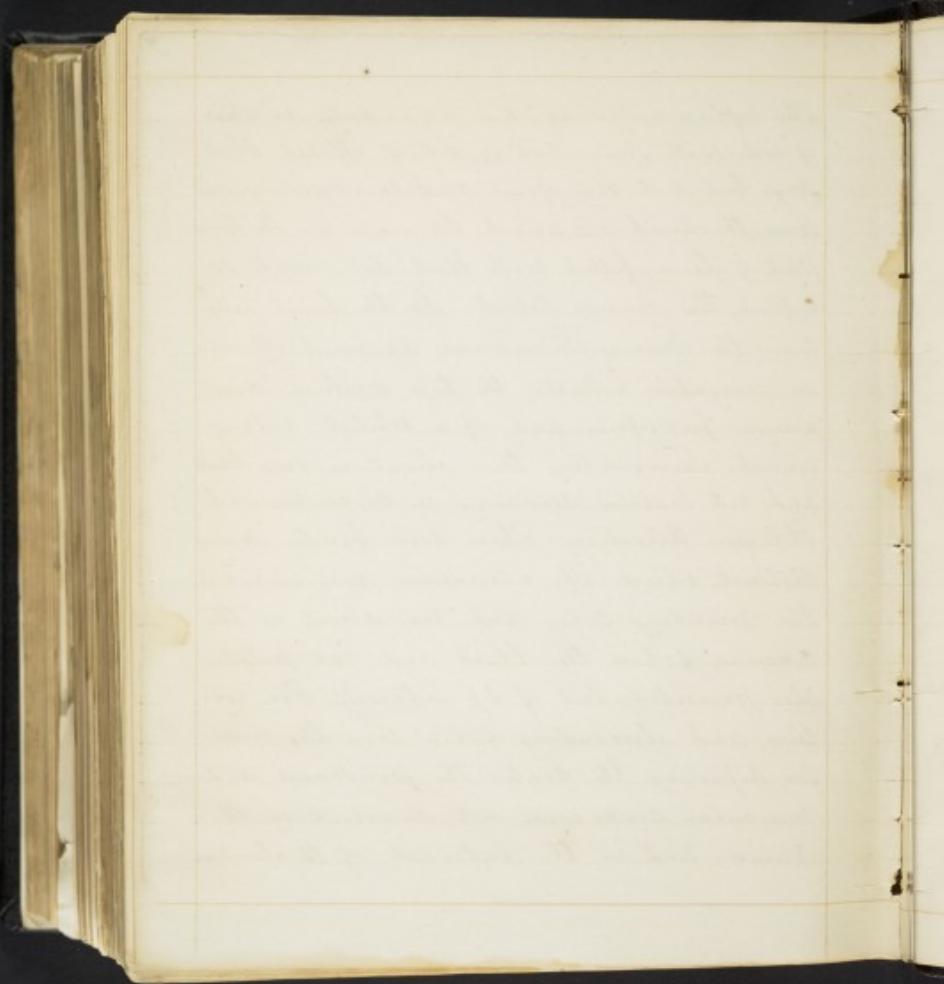


eyes injected, but symptoms generally favorable, was limited to epigastrium; and restricted to light diet.  
Nov. 16. Appeared entirely convalescent. Took cold by imprudent exposure. Fever returned. Skin dry and hot: Tongue red and dry, became at last, dark and encrusted; Subultus tendinous; Heavyety of Shoulders, and laborious respiration: Heavy stupor: died Nov. 21. with all the symptoms of typhus fever.

Autopsy day after death. Stomach, large extremity congested, Mucous tunic thinner, and softer than natural, at greater curvature on the anterior surface albuminous flakes, some pinkish could be scraped off. Dipping the Mucous coat, the under surface exhibited no such appearance. Liver enlarged, but of a natural structure. Upper half of jejunum natural, on the lower part of ileum, almost throughout, were streaks of inflammation, especially on that part of Mucous Membrane, next to the attachment of the Mesentery.

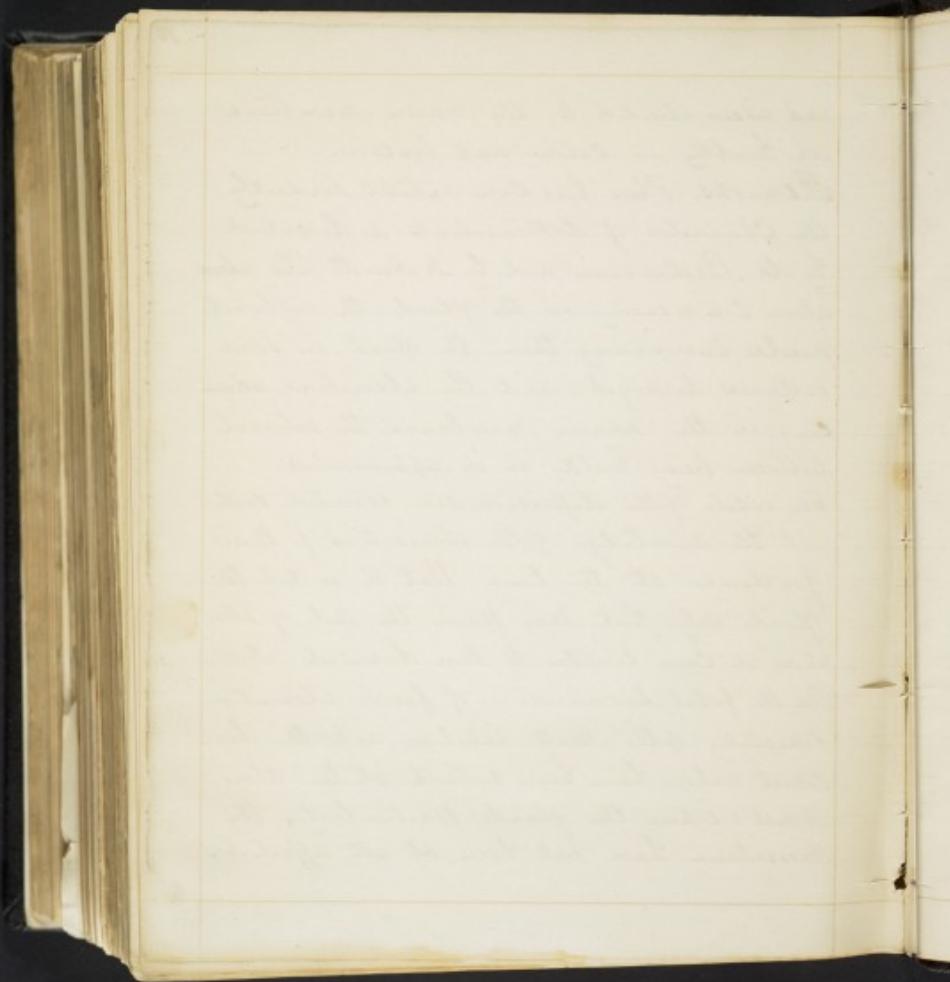


The inflammation existed principally in streaks of red, with some spots or dots, of effused blood, some but not very great muscular injection, and some thickened elliptical laminae in the lower part of ileum, filled with black dots which occupied the mucous follicles. In the large intestine the mucous membrane appeared elevated in irregular hillocks; the tops of which were rough, fungiform, and of a whitish yellow aspect. Surrounding these elevations, were black and red patches running in Circumferential and oblique directions. There were besides many distinct ulcers. The ulceration diminished in the ascending Colon, and was absent in the Cæcum, where the black and red patches also prevailed, but of less intensity. The rectum and descending Colon were the worst. On disecting the coats, the peritoneal and muscular coats, were not involved in the disease, and in the intervals of the elevations

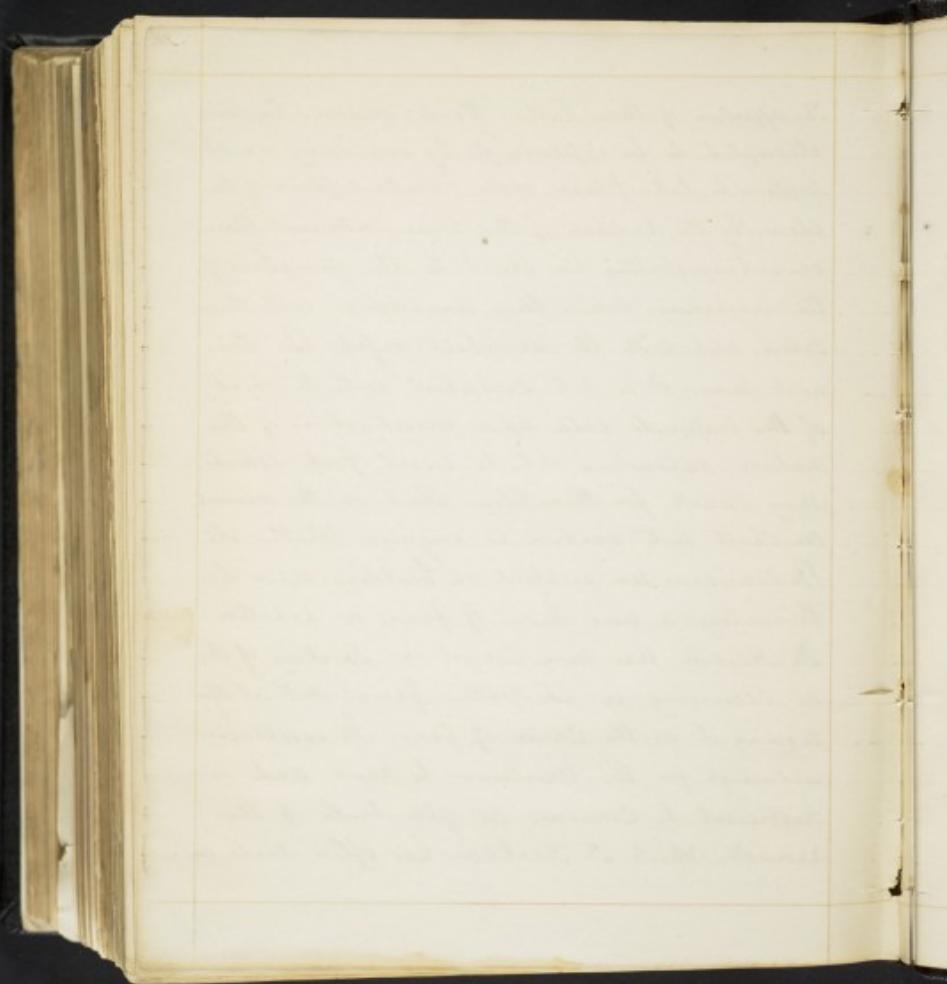


and ulcer alluded to. the Mucous Membrane  
was healthy in colour and texture.

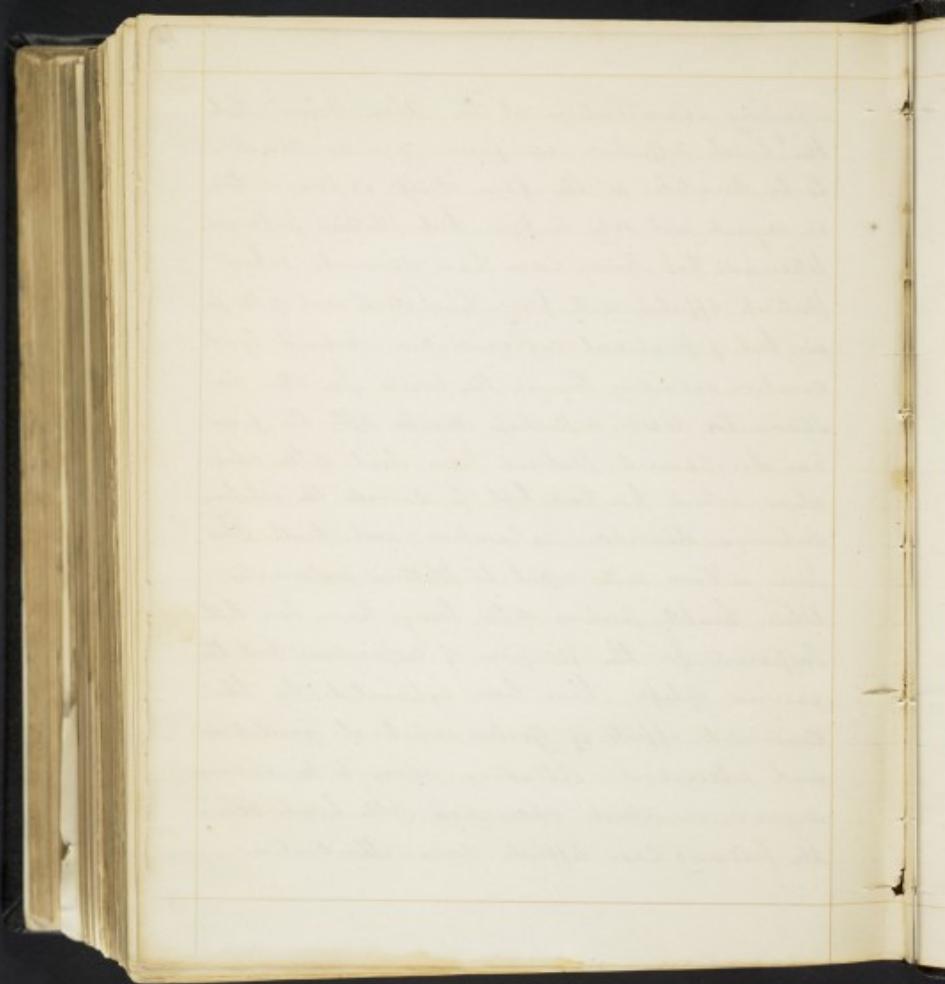
Remarks. These two cases exhibit evidently  
the character of diphtheritis as described  
by M. Brétignier, and by Dr. Newell. The ulcer-  
ation commencing in the gland; the inflamed  
andœ surrounding them; the gland in some  
instances destroyed; and the ulcerations adha-  
sing to the mucous membrane, the intervals  
between, being healthy in its appearance.  
The whole of this description, was recorded with-  
out the knowledge of the observations of those  
gentlemen at the time. But it is set the  
glands only, that may prove the seat of ulcer-  
ation, in cases similar to those described above.  
In the fatal termination of fever, ulceration  
especially of the Nstell intestine, and the ileo-  
cæcal valve, have been noticed at the Alm's  
House; where the glands, particularly, the  
mesenteric, have not been, at all affected.



The affection of their latter glands, indeed, has been attempted to be explained, by supposing an absorption to take place, of the pernicious fluid of the ulcer, by the radicals of the *Venes pectorum*; these veins transporting the fluid to the ganglions of the pectoral; where they communicate with them selves, and with the absorbent vessels. Be this as it may, it is not consistent with the object of this paper, to enter upon investigations of this nature: intending only to record facts which may speak for themselves. And on this account we shall not venture to inquire, whether Mr. Berthomieu, was justified in building upon the pectoral, a new theory of fever; or whether Dr. Hewitt, was more correct in speaking of it, as occurring in idiopathic fever; without designing it, as the cause of fever. Its existence is enough for the practitioner to know, and is sufficient to convince us of the truth of the remark, which Dr. Jackson, has often made in



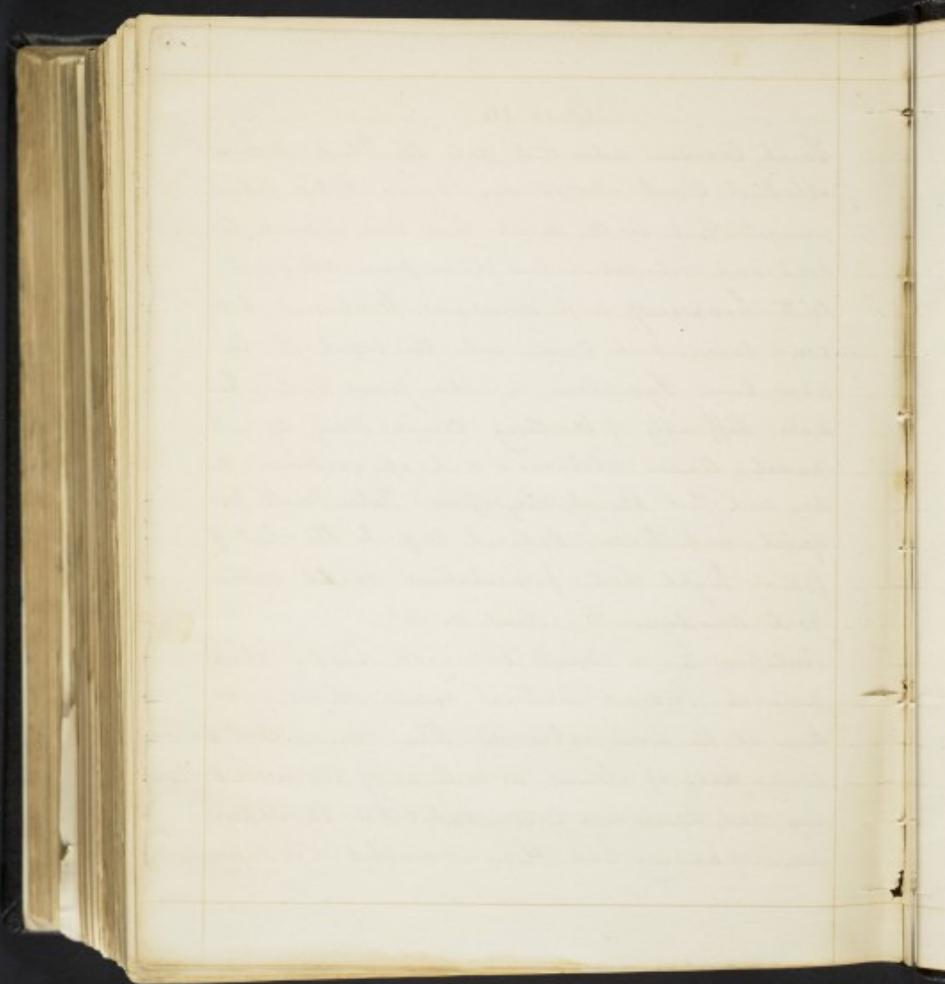
vituperating examinations at the Alm. House, that the local affection in fever, are as mere chills to be abated, as the fever itself. So true is this in regard not only to fever, but Phthisis pulmonalis, whenever, that many cases have occurred, where patients affected with fever, have died not of the fever, but of peritoneal inflammation, induced by ulceration extending through the bowels. In other instances, too, weeks, or perhaps months after the fever has disappeared, patients have died of the ulceration, which has been left to corrode the intestines, inducing, diarrhea, exhaustion; and death. This same is true with respect to Phthisis pulmonalis, when healthy portions of the lung, have been left, sufficient for the purpose of respiration; but the energies of life, have been exhausted, by the continued effects of gastro-intestinal irritation and ulceration. Alluding alone to the various manners, in which, ulceration of the bowels occurs, the following case affords some illustration.



## Case III.

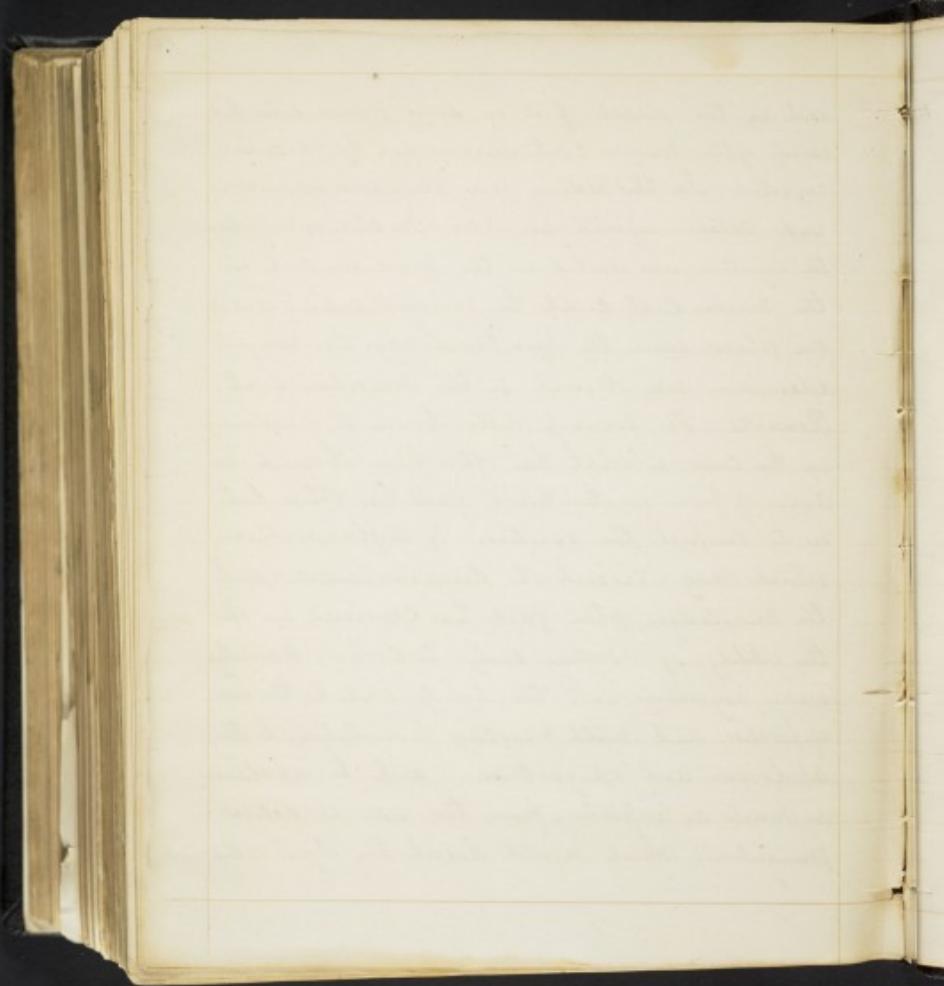
Sarah Warden, admitted into the Black Women's Medical Ward Nov 18 age 22 years. Habit intemperate. Early in the month, had been exposed to cold and wet, which brought on fever, attended with hoarseness and anorexia. Continued to be come worse, and came into the ward at the above time. Symptoms on admission; Violent head ache; difficulty of breathing; Cough; Pain around navel; tender abdomen and epigastrium; skin dry and hot. Bowels very open; Pulse small frequent, and tense. Ordered Cup to the seat of pain; light diet; fomentations; mild astringent anodynes &c. died on 10<sup>th</sup>

Autopsy. Liver much enlarged, larger than natural. Stomach natural except slight injection at the lower extremity. The mucous coat of lower half of ileum, as well as of the ascending and descending colon, exhibited the appearance of having had flour sprinkled on its surface.

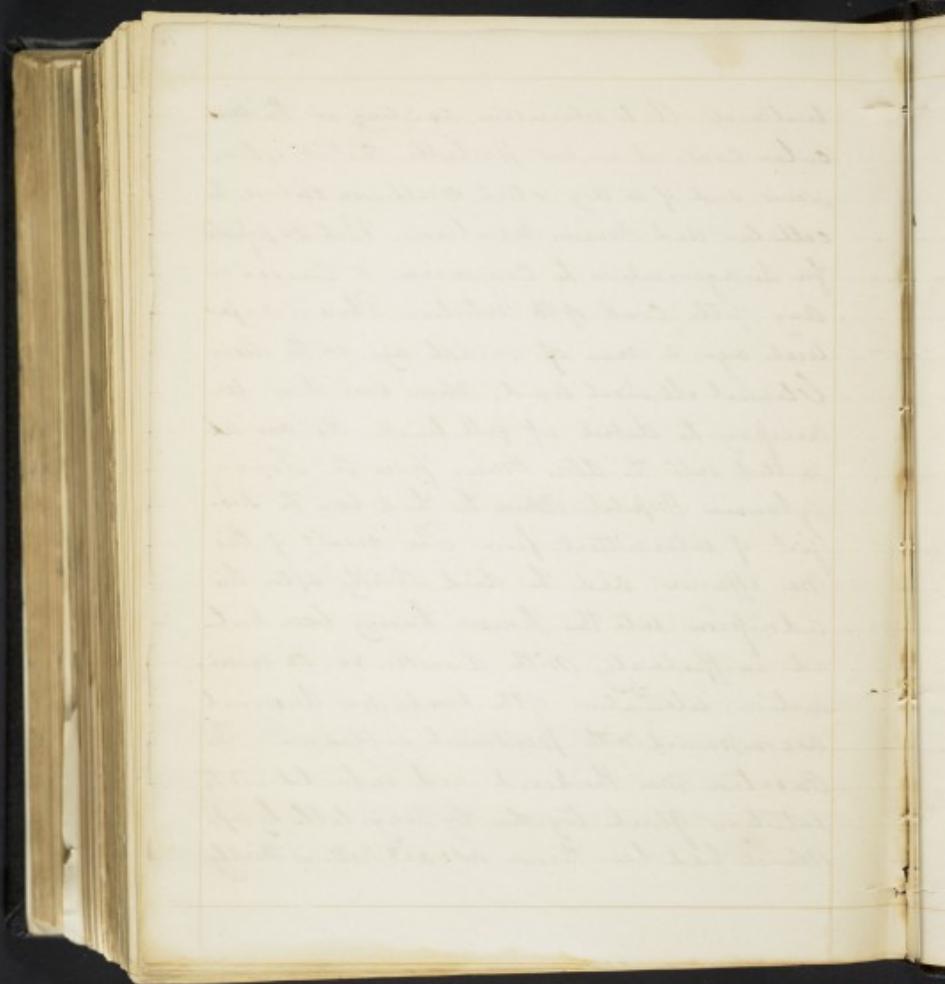


and in the midst of it in some places were thick  
swings of the Mucous Coat, surrounded by vascular  
injection. In the rectum were the same appearance,  
red patches injected as above. On closer examination  
the injection, was seated in the muscular coat, as  
the mucous coat could be removed entire; and in  
one place where the membrane was thus removed  
ulceration was observed in the muscular coat.

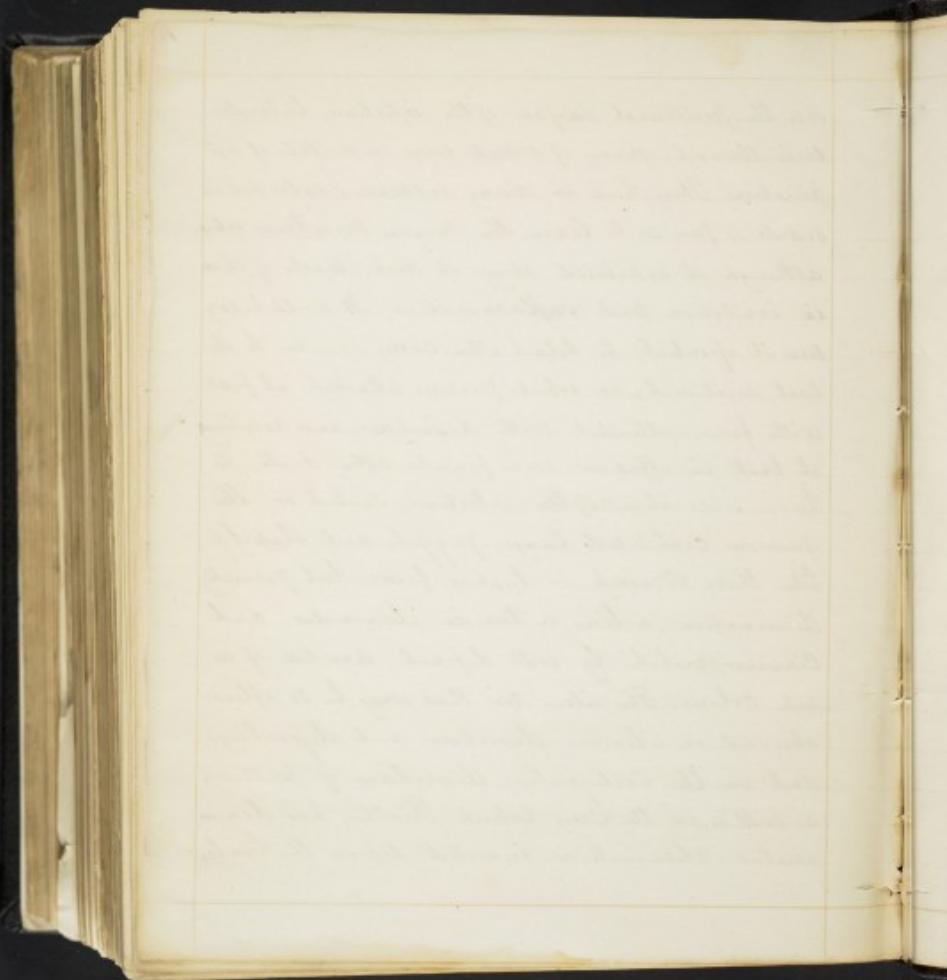
Remarks... The loss of weight, so conspicuous  
in this case, is what has often been observed, in  
cases of fever in this house; and has often led  
us to suspect the existence of inflammation  
which may proceed to disorganization; and  
the knowledge of this fact has convinced us of  
the utility, of resorting early, to cooling & mucilaginous  
injections into the bowels, and to the use  
of plasters, and mild heating fomentations to the  
abdomen and epigastrium; and to abstain  
as much as possible from the use of active  
purgatives, which would defeat the object of this



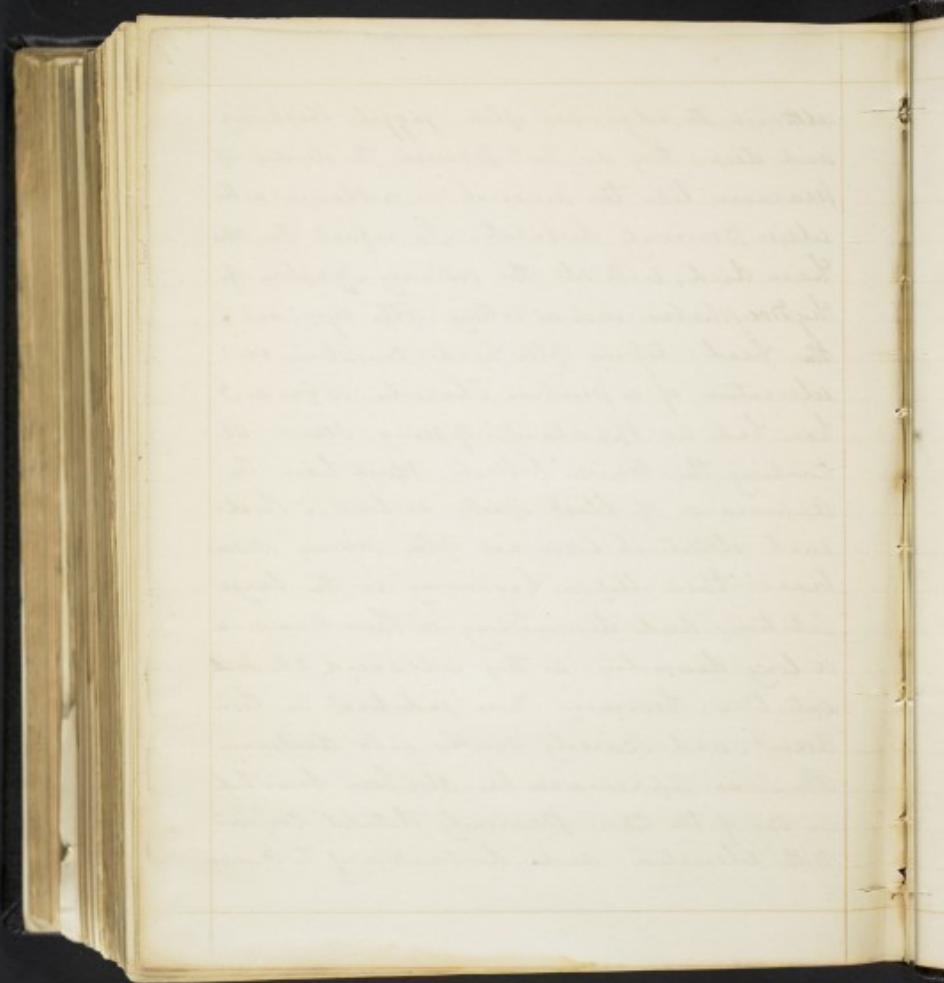
treatment. As to ulceration existing in the muscular coat, it is not probable, that it often occurs, and if it do exist, would soon embrace the cellular and mucous membranes. But it is possible for disorganization to commence its career in any of the coats of the intestine. There did a few weeks ago, a man of middle age, in the Alm's Clinical Medical Ward, whose case it is now necessary to detail at full length. He was admitted into the Alm House, from the Pennsylvania Hospital, where he had been the subject of intermittent fever. The result of this was effusion; and he died shortly after his admission into this house, having been treated ineffectually with diuretics &c. On examination, ulceration of the bowel was discovered accompanied with peritoneal inflammation. The mucus was thickened, and indurated, and the intestines glued together by coagulated lymph which had been thrown out and scattered thickly



on the peritoneal surface of the intestines, tubercles were observed, many of which were in a state of suppuration. This, had in many instances, extended so far, as to leave the mucous membrane entire although it exhibited along its track, marks of chronic irritation and inflammation. It would be very uninteresting to detail other cases, similar to the last mentioned, in which persons attacked, at first with fever, attended with diarrhoea, and resulting at last in effusion, were found after death, to have ulceration of the intestine, seated in the mucous coat; not large, jagged, and sharply like those found in typhus fever, but generally diminutive; a line or two in diameter, and circumscribed by well defined areolæ of a red colour. The ulcer too, that may be so often observed in Chronic diarrhoea and dysentery, and in the Colliquative diarrhoea of phthisis, as well as, in the case which Richter has denominated, rheumatism inserted upon the bowels,



although the edges, are often, jagged, blackish, and deep; they do not present the elevated appearance, like the venereal sores, a chancre, as the ulcer previously described. In infants too, who have died, with all the ordinary symptoms of Hydrocephalus, such as rolling of the eyes; and of the head; toping of the hands; convulsions &c; ulceration of a peculiar character, so far as I have had an opportunity of seeing, occurs, attacking the mucous follicles, which have the appearance of black specks, enclosed in thickened elliptical laminae of the mucous membrane; these appear, beginning in the large intestine, and diminishing in their transverse or long diameter, as they advanced to the small intestine; becoming more indistinct in their aspect, and scarcely visible in the duodenum. The same appearance has also been described in one of the cases previously detailed, cojoined with ulceration, and destruction of the mucous



membrane, & other kind of ulceration have I seen however, in the Hydrocephalus of Children: and its occurrence is sufficient to indicate the utility of considering the Parietal bone, as the principal seat of that disease.

A case of some interest with regard to another disease, it may be worth while to detail more at length.

#### Case 18.

Lewis McGuire age 36 years, admitted into the Almack Medical Ward Sept: 26<sup>th</sup> 1827. Said he had been sick for some weeks. First with Anorexia, nausea, and Head ache. After which his skin became jaundiced. Symptoms, on admission. Skin of a bright yellow a golden color. Conjunctive the same. Tongue white furrid and cracked in every direction. Mouth open: feels no pain. Ordained blue Map and foment of strong Mercurial ointment - diet to be light 27<sup>th</sup> Cup to eight Hypochlorinum



29<sup>th</sup> no better. Skin of a deeper Colour and dry.  
ordered Calomel and Senna in small quantities.  
Oct 2<sup>nd</sup> Bowels too much opened; Strength general-  
ly reduced. Tongue dry and cracked; Voice weak  
and tremulous; ordered Crustaceous Jelap with  
Tinc. Opii; and emollient of flax seed Mucilage  
and Laudanum. 3<sup>rd</sup> Bowels impeded; but dis-  
position to sink. ordered Blister to right Side  
P.M. Sinking. Tongue the same. Mind wander-  
ing; ordered Stimuli, internally, and externally.  
Nolly. 4<sup>th</sup> Sinking gradually. 5<sup>th</sup> Worse: died  
on 7<sup>th</sup> Having ejected from his Stomach before  
death three fourths of a pint, of dark fluid re-  
sembling Copper grounds.

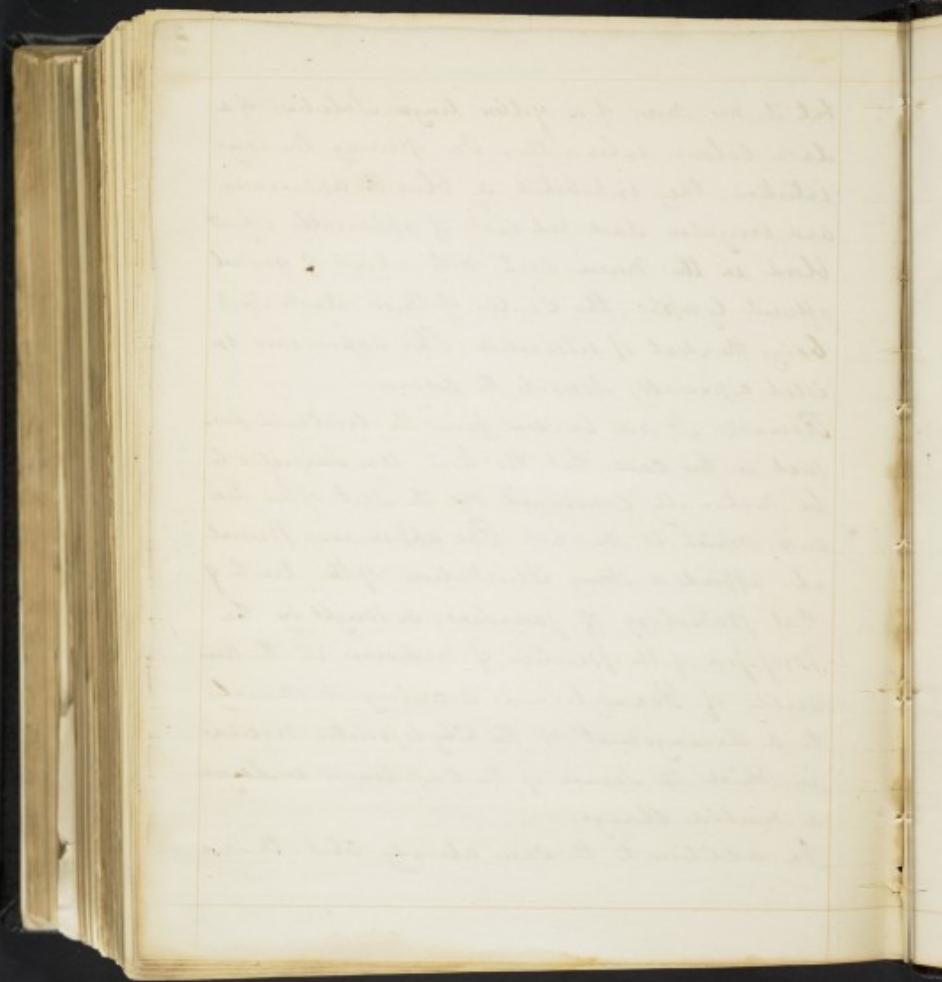
Autopsia. Liver of natural size. Bile natural.  
no obstruction of duct, or apparent irritation  
or inflammation of them. Stomach slightly ir-  
tured at large extremity, in one Spot. But at an-  
terior Surface the mucous tunic, appeared rather  
thickened. no injection or redness of Stomach.



but it was more of a yellow tinge. Intestines of a dark colour externally. On opening the large intestines, they exhibited a bluish appearance, and irregular dark red spots of apparently effused blood, in the Mucous Coat, with a kind of granular effused lymph; the Center of these dark spots being the seat of ulceration. This appearance existed especially towards the Cæcum.

Remarks. It will be seen from the treatment pursued in this case, that the Liver was suspected to be materially concerned as the seat of his disease, which it was not. The appearance presented, afford a strong illustration of the truth of that pathology of jaundice, as taught by the Professors of the Practice of Medicine in the University of Pennsylvania, ascribing it mainly to a derangement of the Chyloprotective viscera in which the Serum of the Capillaries undergoes a morbid change.

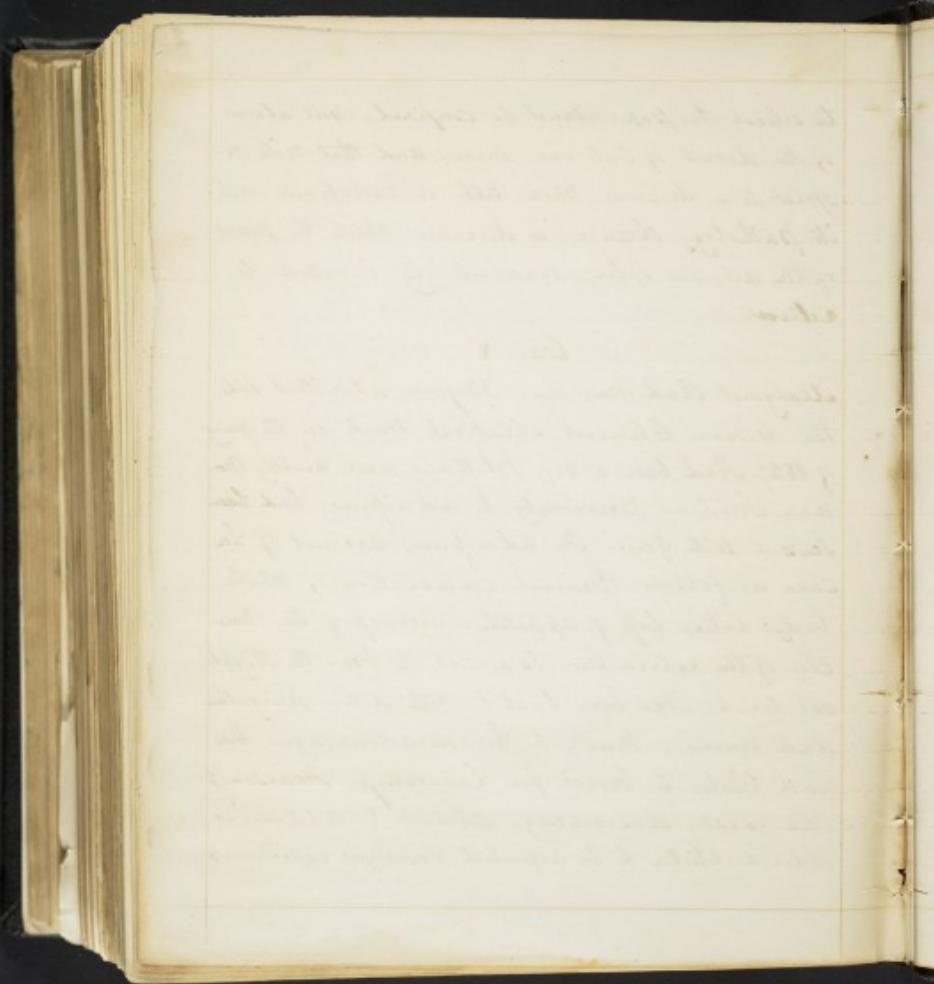
In addition to the case already cited, the Space



to which this paper must be confined, will allow  
of the detail of but one more; and that with re-  
spect to a disease whose title is indefinite and  
its pathology obscure; a disease which the powers  
of the art, are often, unavailingly, invoked to  
relieve.

#### CASE V.

Margaret Anderson, age 33 years, admitted into  
the Morvan Clinical Medical Ward in the Spring  
of 1827. Had been a very plump and healthy Wo-  
man. Sensitive previously to adipins, had been  
seized with fever. On adipins, account of her  
case as follows. General emaciation of whole  
body; entire loss of appetite. Soreness of the Mu-  
cles of the extremities, so as not to bear the slight  
est touch. Has been treated with active purgatives  
and emetics, much to her disadvantage. Has  
had blisters to breast for Leucospis, Hoarsospis  
etc which, amputating, almost to aphonia,  
ordered blister to be repeated & sand-powder applied



Speech in a few weeks returned. Scrup of which  
it was soon relieved. Generous diet allowed, and  
Anodynes at night. April 25<sup>th</sup>. Pain at Stomach  
for which she was bled, and black draught &  
Anodyne Mixture ordered. May 20<sup>th</sup>. Some paroxysms  
of pain in bowels, with tenesmus, which  
nothing could relieve. lingered until June,  
and died with all the symptoms which charac-  
terized Marasmus or Tabes Mesentrica.  
Autopsia: Liver, kidneys, and uterus natural.  
ovaries enlarged. Stomach entirely situated to  
the left of the spine in left hypochondrium.  
The greater extremity uppermost, and in contact  
with the diaphragm. The lesser extremity low-  
ermost, and in contact with the left side of  
the spine; the duodenum lying perpendicular-  
ly, on the spine. The rectum bore extensive  
marks of ulceration of the mucous coat, most  
of which had healed, or cicatrized, and this  
appearance continued through the whole of



the Colon, but was much less in the rectum. In the rectum, and lower portion of ileum were observed some dark colored tubular thickenings, of the Mucous Coat, and elevated laminae of the same, red, and florid, with well defined edges. The rest of the Mucous Surface, had the appearance of having been ulcerated and cicatrized. The Small Intestines, especially, altered by chronic inflammation, and having a granular aspect, as if flour, had been dusted over this surface. The Glands of the Mesentery somewhat enlarged.

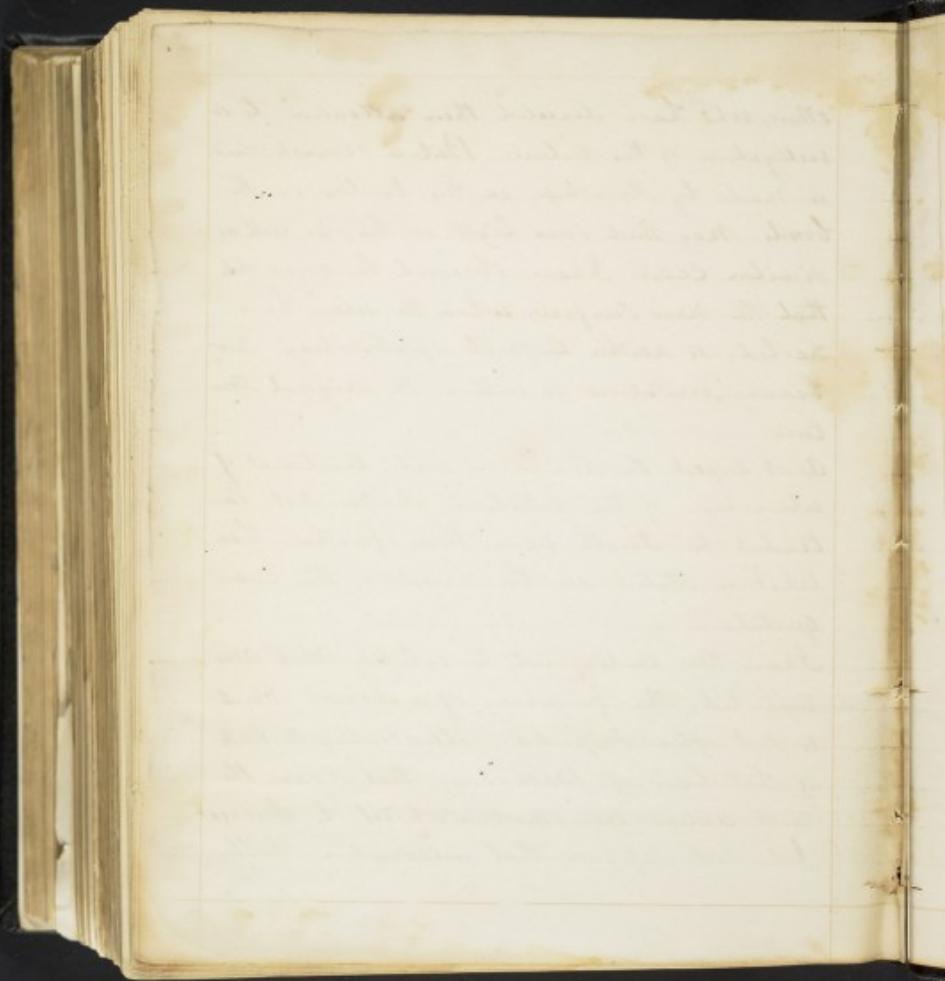
Remarks. This Case will illustrate the effect of ulceration of the intestines and the time it may continue, as well as, the recuperative effects which the System can make to relieve itself. It has been doubted, whether the Mucous Membrane, after being destroyed, by ulceration, could be healed, or regenerated - That it may be, is admitted, by Trullet, Andral, Hevith and

La nostra vita già non era più quella  
di un tempo, e mentre aveva cominciato  
ad essere meno intensa, aveva anche  
cominciato a perdere il suo senso.  
Le cose che prima erano state di grande  
importanza, adesso non lo erano più.  
I colori, i suoni, le persone, le cose  
che aveva sempre amato, erano diventati  
semplici, quasi indifferenti.  
Era come se la vita stessa avesse smesso  
di avere un senso, di essere qualcosa di  
piuttosto che un insieme di sensazioni  
casuali.

Others, who have directed their attention to the investigation of this disease. But a remark which is made by Horwitz, in his treatise on the womb, may shed some light on this, as well as similar cases. I have observed he remarks, that the new surface, when the ulcer has healed, is neither capable of aborting, nor bearing irritation so well as the original structure.

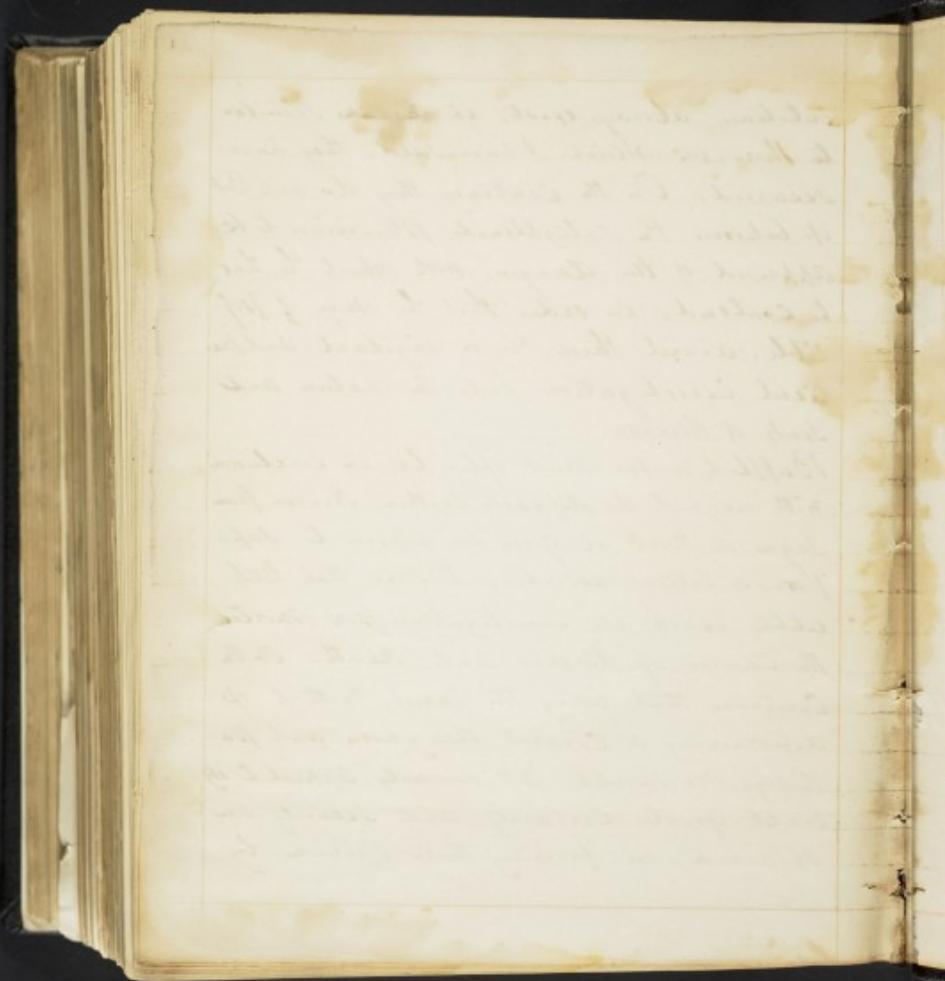
As it respects the diagnosis and treatment of ulceration of the intestines, it was not intended to dwell upon them further, than what is stated in the record of the cases quoted.

I have thus endeavored to exhibit what may be intended, the frequency of a disease which is not often suspected; illustrating the truth of that law of Pathology, that organs the most active, are most subject to disease. I do not suppose that, ulceration of the



institutions, always exists, in disease similar to them, in which I have said, they have occurred. On the contrary they do not. But it behoves the enlightened Physician to be apprised of the dangers, with which he has to contend, in order that he may if possible, avoid them, by a vigilant and frequent investigation into the nature and seats of disease.

Baffled as we must often be, in conclusion with regard to disease within, or even from signs without, it gives no reason to suppose, or believe, according to some, that little utility exists in investigating post mortem the causes of disease and death. On the contrary that being the surest method of determining a correct diagnosis and pathology, we should apidurously appeal to it until greater certainty, and security are obtained, in forming those opinions by



which it is attempted to regulate the practice of Medicine.

M. O  
Vol. 50 - These

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